

GOLSIL

MINES LIMITED

65

NOW UNDERGROUND



ANNUAL REPORT TO SHAREHOLDERS

FOR YEAR ENDING DECEMBER 31, 1965



President Arrowsmith collecting samples from face on 350 ft. level. (See also cover photo.)



Two miners with Mr. Arrowsmith inspecting drift on 350 ft. level after dewatering.



Slim Sebolt, resident engineer, at the controls of the two "skips" (elevators).

GOLSIL MINES LIMITED

CAPITALIZATION

AUTHORIZED — 5,000,000 SHARES N.P.V.

ISSUED — 2,590,659 SHARES

of which 810,000 are held in escrow

OFFICERS AND DIRECTORS

W. C. ARROWSMITH, President

A. J. LEWIS, Vice-President, Secty.-Treas.

J. A. GILBERT, Director

J. A. MURPHY, Director

L. PANCER, Director

PROPERTY

Covers 37 claims in Favourable Lake district about 120 air miles north of Red Lake, Ontario; the former Berens Rivers Mines, gold-silver-lead-zinc producer 1939-48 from No. 1 shaft.

CONSULTING GEOLOGISTS

SLIM SEBOLT, P.Eng., Resident Engineer

W. C. MARTIN, P.Eng., directed surface drilling

GORDON H. GIBBS, P.Eng., economic geologist who prepared feasibility report now incorporated in company's prospectus

E. M. LEWIN, P.Eng., former resident engineer

REGISTRAR AND TRANSFER AGENT

Sterling Trusts Corporation, Toronto

HEAD OFFICE

SUITE 507 — 55 YORK STREET
TORONTO 1, ONTARIO



PRESIDENT'S REPORT TO SHAREHOLDERS

Having spent the better part of the past month in your Company's Favourable Lake property, I can assure shareholders that we are now making excellent progress in the task of confirming from underground the ore that was indicated from the surface diamond drilling carried out last year.

It is, of course, too early to make any suggestion about "proven" tonnage. We have only just prepared the 490 ft. level ready for drifting to the east along the vein structure. The diamond drilling about to begin on this level will help lead the way — and should give us more data on which to determine whether we are dealing with three parallel vein systems or one wide band of ore.

I have examined both the 340 ft. and the 490 ft. levels as far as they were cut by the previous operators and I can say that the structure and the tenor of the ore I have sampled, are very much as I expected from the results of the surface drilling. I collected four bags of rock samples and chips from the face of the 340 ft. drift and they gave the following assays in precious metals:

First sample: averaged 0.01 oz. gold — 1.25 ozs. silver per ton

Second sample: averaged 0.12 oz. gold — 3.94 ozs. silver

Third sample: averaged 0.04 oz. gold — 2.82 ozs. silver

Fourth sample: averaged 0.12 oz. gold — 12.22 ozs. silver

It should be pointed out that these are samples chipped more or less at random from the face of the drift. While they were not assayed for base metals, all four samples showed the presence not only of lead and zinc, which we have heretofore known to be present in the ore, but also copper. I find this quite interesting. Even a half of one per cent copper in this ore would, at today's high price, represent an added value per ton of about \$4.50. It will be recalled that last summer a geologist heading a field party for the Ontario Department of Mines took four samples from the No. 3 vein on surface. The assay results from these samples, in addition to showing gold, high silver, lead and zinc values,

also, in three of the four samples returned low-grade copper, and in two of the four, values of cadmium. Since there was no previous indication of the presence of these metals, the intersections from your Company's drilling last year were assayed only for gold, silver, lead and zinc.

TO CONFIRM DRILL CORE ASSAYS

Under the very efficient direction of your Company's Resident Engineer, Slim Sebolt, P.Eng., everything in the camp is shipshape and ready now for the important stage of the work which we have been building up to all winter long. We have a skilled crew of 15 men on hand. All the equipment we need at the moment, including the drills, has been delivered by overland freight or by air and we are now set to tackle that 490 ft. level which will, I expect, pretty much tell the tale as to whether a profitable mining operations can be launched, and if so, how soon, in terms of additional development.

If you will check the drilling chart (reproduced on the inside back cover of this report) which was prepared by W. C. Martin, P.Eng., the consulting geologist who directed the drilling operations last year, run your eye along the figures east from 490 ft. or bottom level.

At 450 ft. the G 17 hole returned a 4-ft. intersection of 0.20 oz. gold, 16.43 ozs. silver, with added low lead-zinc values.

At 475 ft. the G 16 returned a 3 ft. intersection assaying 0.15 oz. gold, 24.16 ozs. silver, again with low lead-zinc values.

At 420 ft. the G 19 returned a 5 ft. section assaying 0.27 oz. gold, 16.42 ozs. silver, 1.38% lead and 2.56% zinc. Moving further east there is the G 14 and the G 13 which returned much higher values in zinc and lead. Go down below a hundred feet or so at this point and you find where the G 8 hole came up with a 10 ft. section of 0.06 oz. gold, 12.52 ozs. silver, 3.45% lead and 6.45% zinc per ton of ore.

If we can confirm values like these in drifting and drilling along the 490 ft. level, I think it

could then safely be said that your Company would be well on the road to the success everyone has worked so hard to achieve up to this point.

POTENTIALLY GREATER TONNAGE

Taking the overall average above the 1,000 ft. level on results of 25 drill holes, H. Gordon Gibbs, P.Eng., consulting economic geologist has estimated tonnage (diluted 20%) at 600,000 tons averaging 0.18 oz. gold, 7.81 ozs. silver, 2.06% lead and 2.99% zinc.

As for deeper levels, he has pointed out that only a small amount of drilling to the 1,500 ft. horizon has been done. A good intersection is shown in the plan of the 1,550 ft. level, 13.8 ft. at 0.67 oz. gold and 9.3 ozs. silver in about the central portion of No. 2 shaft zone. He concludes that there is therefore some indication that good ore extends down to the 1,550 ft. horizon, but present information is insufficient to estimate tonnage and grade.

I don't think we should lose track of the No. 4 vein zone which lies about 500 ft. south of the No. 2 shaft. Three widely spaced holes no deeper than 300 ft. put down in this zone returned 0.12 oz. gold, 9.71 ozs. silver plus low values of lead and zinc over an average width of four feet. Mr. Gibbs feels that close diamond drilling would probably line up some short shoots of ore.

In addition to the depth potential and the No. 4 zone, Mr. Gibbs has pointed out that there are veins carrying good values up to 1,000 ft. north of the No. 2 shaft where practically no work has been done. There's another exploration target in a contact zone south of the No. 1

shaft where strong alteration of the type associated with ore is indicated. There are also sediments and iron formation lying east of the mine which probably represent the east limb of the ore structure and warrant further investigation, in the opinion of Mr. Gibbs.

So, as you can see, we have a good deal of potential for a much larger operation than presently envisaged — which also means we have a good deal of work cut out for us to explore and develop all these possibilities as we work on the main deposit.

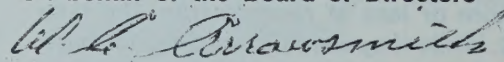
ANNUAL MEETING OF SHAREHOLDERS

But it's first things first, and that's the underground program on the 490 level now underway and where we are starting up to 1,000 ft. of drifting along the vein eastward with some 15,000 ft. of diamond drilling as we go.

From here on, you may expect to receive regular progress reports from the mine giving you a stream of assay results from both drilling and bulk sampling. I am hoping it will be possible to make our first significant summary of progress in person at the forthcoming Annual Meeting of shareholders which has been called for May 30, 1966 at the time and place noted in the accompanying Notice of Meeting.

We are now at the decisive stage in the development of your Company's Favourable Lake project. Having been associated intimately with this operation from the staking to the sampling underground, I can only repeat by firm conviction that, given the same heartening support by the shareholders which our Company has enjoyed in the past two years, success is within our grasp.

On behalf of the Board of Directors



GOLSIL MINES LIMITED

President

MAY 2, 1966





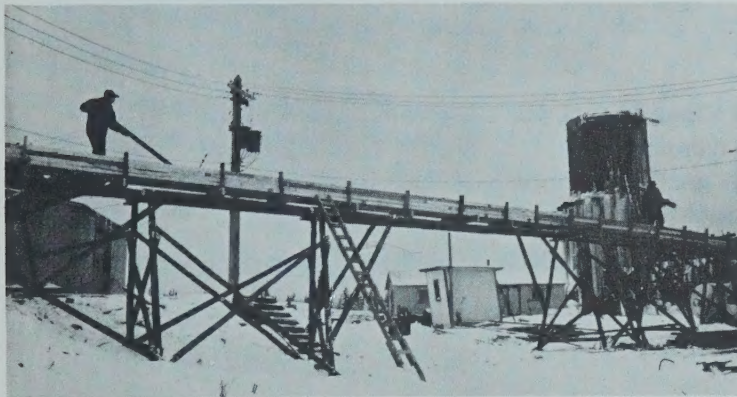
Thousands of gallons of oil and diesel fuel were brought in by overland winter freight route.



There's regular air communication from Red Lake. This Beaver landed on nearby Borthwick Lake at -54° .

*'Barren winter,
with his wrathful
nipping cold'*

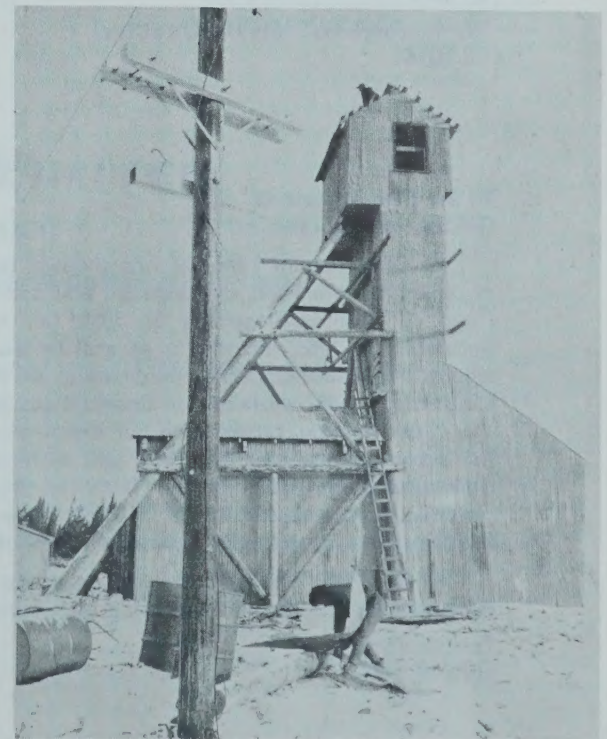
Through temperatures that occasionally went far below anything Shakespeare had in mind, the Golsil crew worked through the winter to prepare the No. 2 shaft area for underground exploration and drilling, now beginning.



Building the steam line box to the hoist room and shaft house. Note power line in background.



Working on the installation of the "skips" which carry men, equipment below, bring up rock from drifting.



Workmen putting the last of the metal sheathing on the headframe which houses the hoist room (November).

GOLSIL MIN

(Incorporated under the law

BALANCE SHEET AS

ASSETS

Current assets

Cash	\$ 24,038.80	
Deposit receipts with chartered bank	115,000.00	
Miscellaneous advances and receivables	420.92	
Accrued interest on deposit receipts	164.56	\$139,624.28

Fixed assets

Unpatented mining claims at valuation attributed (as revised) to 900,000 shares of the company's capital stock issued for claims plus \$958.57 cost of staking additional claims	\$ 90,958.57	
Mine buildings and equipment, at cost	143,680.90	234,639.47

Deferred expenditures

Exploration, development and administrative expenditures, per statement....	\$376,504.72	
Organization expenses	2,435.00	378,939.72
		<u>\$753,203.47</u>

The accompanying notes are an integral part of the financial statements.

Approved on behalf of the Board of Directors:

A. J. LEWIS (Director)

W. C. ARROWSMITH (Director)

AUDITORS' REPORT

To the Shareholders of
GOLSIL MINES LIMITED

We have examined the balance sheet of Golsil Mines Limited as at December 31, 1965 and the statements of deferred exploration, development and administrative expenditures and deficit for the period from inception (June 15, 1959) to December 31, 1965. Our examination, which covered the period from January 1, 1962 to December 31, 1965, included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances. For the period prior to January 1, 1962 we relied on financial statements reported on by another firm of Chartered Accountants.

In our opinion, based upon our examination and the reports of the other firm of Chartered Accountants, the accompanying balance sheet and statements of deferred exploration, development and administrative expenditures and deficit present fairly the financial position of the company as at December 31, 1965 and its activities from inception (June 15, 1959) to December 31, 1965, in accordance with generally accepted accounting principles consistently applied throughout the period.

We have also examined the accompanying statement of source and application of funds for the year ended December 31, 1965. In our opinion the statement presents fairly the source and application of funds for the year.

Toronto, Ontario,
April 29, 1966.

FISHER, NESTER & COMPANY,
Chartered Accountants.

S LIMITED

Province of Ontario)

EMBER 31, 1965

LIABILITIES

Current liabilities

Accounts payable	\$ 17,089.43
Payable to affiliated company, North Rock Explorations Limited (formerly Roche Mines Limited)	22,552.20
Due to Asta Corporation Limited (Note 1)	49,034.10 \$ 88,675.73

Capital and deficit

Capital stock (Notes 2 and 3)

Authorized:

5,000,000 shares without par value (not to exceed
\$3,000,000.00)

Issued and fully paid:

1,140,659 shares issued for cash	\$ 866,714.47
550,000 shares in satisfaction of advances made by North Rock Explorations Limited, the then parent company	55,000.00
900,000 shares issued for mining claims	900,000.00

2,590,659 shares	\$1,821,714.47
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Deficit, per statement	1,157,186.73 664,527.74
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\$753,203.47

GOLSIL MINES LIMITED

STATEMENT OF DEFICIT

FROM INCEPTION (JUNE 15, 1959) TO DECEMBER 31, 1965

Change in valuation which the directors had originally placed on 900,000 shares issued for mining claims from \$1.00 per share to 10c per share	\$ 810,000.00
Commission and expenses on sale of capital stock	346,683.77
Cost of staking mining claims, abandoned	502.96
	<u>\$1,157,186.73</u>

GOLSIL MINES LIMITED

DEFERRED EXPLORATION, DEVELOPMENT AND ADMINISTRATIVE EXPENDITURES FROM INCEPTION (JUNE 15, 1959) TO DECEMBER 31, 1965

	Inception to December 31, 1964	Year Ended December 31, 1965	Inception December 31, 1965
EXPLORATION AND DEVELOPMENT			
Favourable Lake Area, Ontario			
Transportation of personnel and supplies	\$ 16,302.82	\$ 27,001.03	\$ 43,303.85
Engineering and consulting fees and expenses	18,172.17	24,046.56	42,218.73
Salaries and wages	17,050.77	34,243.89	51,294.66
Supplies	5,876.31	31,168.67	37,044.98
Diamond drilling	121,178.46	—	121,178.46
Surveying	2,113.68	—	2,113.68
Line cutting	1,277.03	—	1,277.03
Government fees, licenses and taxes	1,768.90	343.80	2,112.70
Workmen's compensation	626.40	1,000.00	1,626.40
Assaying	3,308.53	—	3,308.53
Equipment rentals and repairs	965.77	1,632.87	2,598.64
Board	2,488.00	—	2,488.00
Insurance	—	1,228.00	1,228.00
Miscellaneous	4,338.44	2,388.16	6,726.60
	<u>\$195,467.28</u>	<u>\$123,052.98</u>	<u>\$318,520.26</u>
Savant Lake Area, Ontario			
Engineering and consulting fees and expenses	\$ 1,113.50	\$ 300.00	\$ 1,413.50
Government fees	302.00	56.00	358.00
Clearing and stripping	852.50	—	852.50
Diamond drilling	—	5,802.90	5,802.90
Miscellaneous	334.42	—	334.42
	<u>\$ 2,602.42</u>	<u>\$ 6,158.90</u>	<u>\$ 8,761.32</u>
Total exploration and development expenditures	\$198,069.70	\$129,211.88	\$327,281.58
Total administrative expenditures (Schedule "A")	36,934.00	12,289.14	49,223.14
Total deferred expenditures	\$235,003.70	\$141,501.02	\$376,504.72

DEFERRED ADMINISTRATIVE EXPENDITURES FROM INCEPTION (JUNE 15, 1959) TO DECEMBER 31, 1965

	Inception to December 31, 1964	Year Ended December 31, 1965	Inception December 31, 1965
Salaries	\$12,664.27	\$ —	\$12,664.27
Legal and audit fees	8,010.00	3,424.20	11,434.20
Rent	3,129.65	—	3,129.65
Office accommodation, accounting and secretarial services	3,000.00	2,400.00	5,400.00
Travelling	2,147.41	796.97	2,944.38
Postage, telephone and telegraph	2,016.98	1,603.47	3,620.45
Directors' fees	900.00	100.00	1,000.00
Office and general expenses	1,072.03	1,328.37	2,400.40
Transfer agent's fees and expenses	2,991.80	1,561.61	4,553.41
Government fees and taxes	870.00	90.00	960.00
Shareholders' information and reports, including annual reports	1,775.16	1,106.08	2,881.24
Interest charges	—	1,523.43	1,523.43
	<u>\$38,577.30</u>	<u>\$13,934.13</u>	<u>\$52,511.43</u>
Less — interest earned	1,643.30	1,644.99	3,288.29
Total administrative expenditures	\$36,934.00	\$12,289.14	\$49,223.14

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 1965

NOTE 1—Due to Asta Corporation Limited—\$49,034.10

This amount represents the unpaid portion of the company's contribution toward the costs and expenses incurred by Asta Corporation Limited in acting as agent for the company in the distribution of its shares.

By an agreement dated December 24, 1965 Asta Corporation Limited agreed that it will not seek to recover \$40,201.73 of this amount except under the following circumstances:

If and when the company completes on its Favourable Lake property a proposed recommended program as outlined by Gordon Gibbs, P.Eng., in reports to the company, presently contemplated to cover drifting of approximately 1,000 feet on the 490 level and approximately 15,000 feet of underground diamond drilling that the Board of Directors may thereafter, in their discretion, undertake to pay the amount due.

In arriving at its decision at this point to repay this amount or any part thereof, the Board of Directors will further consider whether it has adequate funds on hand to continue carrying out the recommendations of its consulting engineers.

NOTE 2—Capital stock sold during the year

During the year ended December 31, 1965 the company sold 390,950 shares of capital stock for \$329,999.00 cash less \$131,999.60 commission and selling expenses.

NOTE 3—Capital stock sold subsequent to balance sheet date

Subsequent to the balance sheet date (to April 29, 1966) the company sold 126,200 shares of capital stock for \$154,235.00 less \$61,693.98 commission and selling expenses.

GOLSIL MINES LIMITED

STATEMENT OF SOURCE AND APPLICATION OF FUNDS FOR THE YEAR ENDED DECEMBER 31, 1965

Source of funds

From sale of 390,950 shares of capital stock	\$329,999.00	
Less —		
Commission and selling expenses.....	131,999.60	\$197,999.40

Application of funds

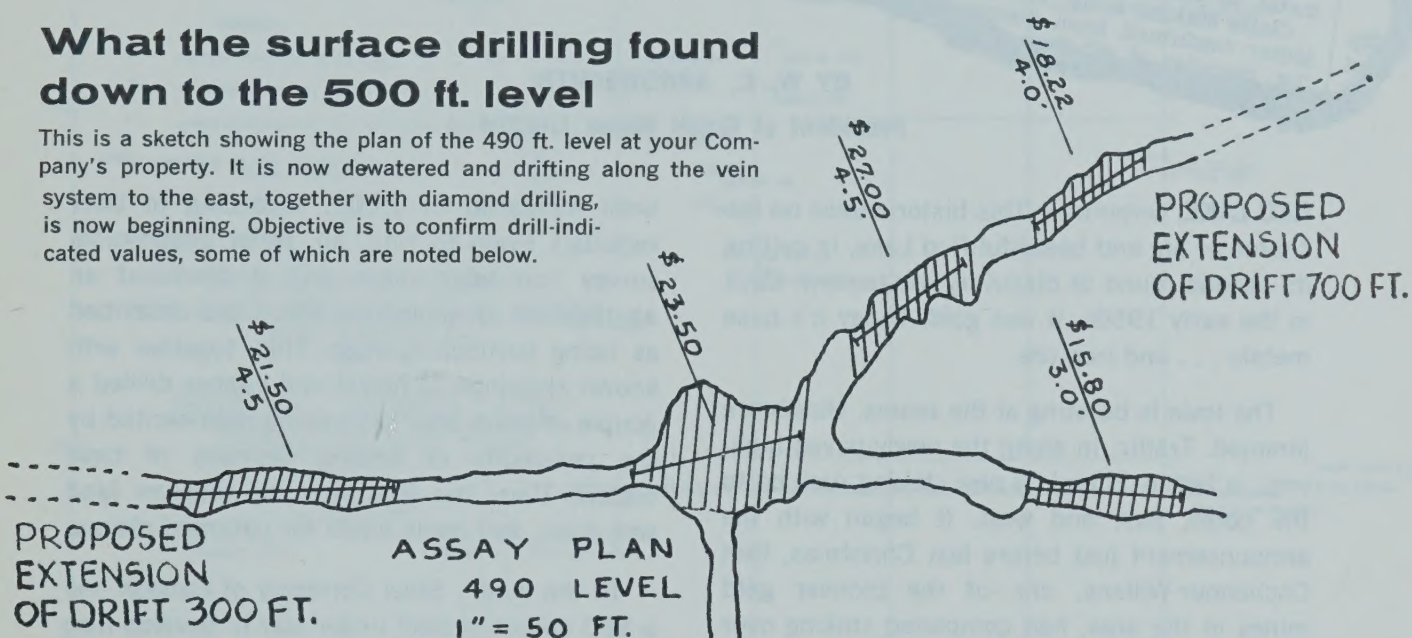
Mine buildings and equipment	\$135,933.23	
Exploration, development and administrative expenditures	141,501.02	277,434.25
Decrease in working capital		(\$ 79,434.85)

WORKING CAPITAL CHANGES

	December 31, 1964	December 31, 1965	Increase (Decrease) in Working Capital
Current assets			
Cash	\$165,356.81	\$ 24,038.80	(\$141,318.01)
Deposit receipts with bank	—	115,000.00	115,000.00
Miscellaneous advances and receivables	147.28	420.92	273.64
Accrued interest	480.80	164.56	(316.24)
	\$165,984.89	\$139,624.28	(\$ 26,360.61)
Current liabilities			
Accounts payable	\$ 2,041.79	\$ 17,089.43	(\$ 15,047.64)
Payable to North Rock Explorations Limited	33,559.70	22,552.20	11,007.50
Due to Asta Corporation Limited	—	49,034.10	(49,034.10)
	\$ 35,601.49	\$ 88,675.73	(\$ 53,074.24)
	\$130,383.40	\$ 50,948.55	(\$ 79,434.85)

What the surface drilling found down to the 500 ft. level

This is a sketch showing the plan of the 490 ft. level at your Company's property. It is now dewatered and drifting along the vein system to the east, together with diamond drilling, is now beginning. Objective is to confirm drill-indicated values, some of which are noted below.



EAST ALONG 490 FT. LEVEL

HOLE No.	DEPTH	WIDTH	OZ. GOLD	OZ. SILVER	% LEAD	% ZINC
G 17	420'	3.0'	0.05	3.79		
	450'	4.0'	0.20	16.43	0.13	0.34
	520'	6.0'	0.10	3.74		
G 16	450'	3.0'	0.14	14.00	3.60	5.84
	475'	3.0'	0.15	24.16	0.44	0.49
	525'	3.0'	0.09	7.40	0.44	1.00
G 19	420'	5.0'	0.27	16.42	1.38	2.56
	460'	2.0'	0.04	1.98	0.32	0.98
G 24	420'	5.0'	0.25	4.33		
G 13	470'	1.2'	0.03	4.36	2.91	12.35

EAST ZONE BELOW 500 FT.

HOLE No.	DEPTH	WIDTH	OZ. GOLD	OZ. SILVER	% LEAD	% ZINC
G 8	615'					

EAST ZONE BETWEEN 500 AND 1,000 FT.

HOLE No.	DEPTH	WIDTH	OZ. GOLD	OZ. SILVER	% LEAD	% ZINC
G 8	615'	10.0'	0.06	12.52	3.45	6.45
	705'	1.5'	0.12	1.55	0.68	1.54
G 18	600'	8.0'	0.10	4.35	2.50	4.19
	620'	4.0'	0.08	2.96	1.32	1.95
	670'	3.0'	0.02	9.30	6.93	3.82
G 15	780'	3.0'	0.01	8.57	3.16	2.71
	810'	5.5'	0.61	6.57	1.93	6.50
	820'	21.5'	0.40	8.76	4.19	4.13
G 6	905'	10.0'	0.24	10.83	4.41	1.51
S275*	800'	2.2'	0.50	28.3	n.a.	n.a.

(*Drilled by previous operators)

SEE ALSO COMPLETE
DRILLING CHART ON
INSIDE BACK COVER

See SEEK BASE METALS P68

Claim staking is up, The Northern Miner confirmed from district engineering recorder V. T. [redacted]

For actual dollar outlay, Stelco's new Griffith iron mining complex at Bruce Lake far exceeds anything this area has ever seen. Scheduled to come into production in '68, calls for expenditures of \$10 million.

President of Golsil Mines Limited

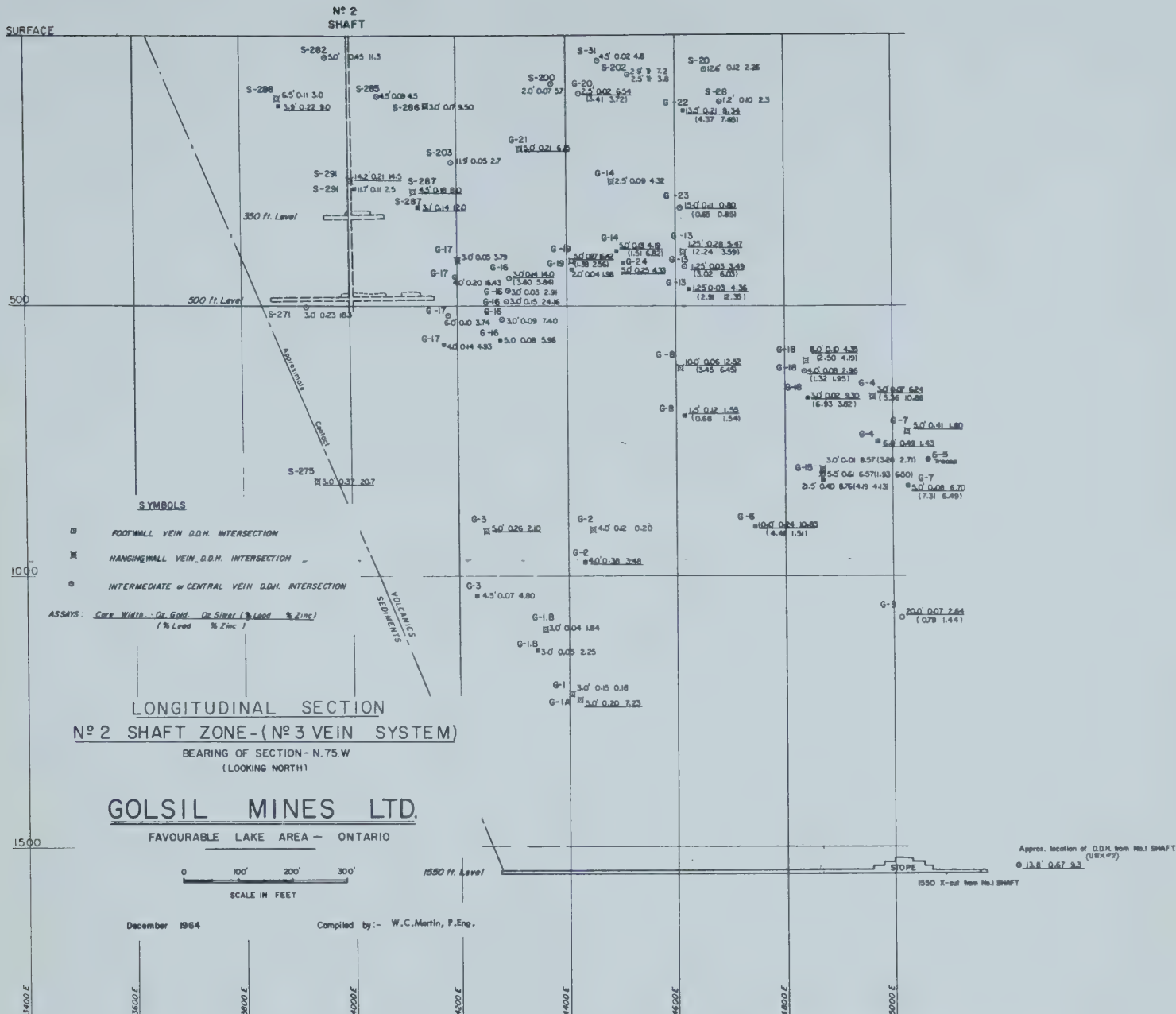
The town is bursting at the seams. Hotels are jammed. Traffic, in along the newly-paved highway, is heavy. There's a new staking rush on to the north, east and west. It began with the announcement just before last Christmas, that Cochenour-Willans, one of the pioneer gold mines in the area, had completed staking over 400 claims in the area, according to a Dec. 23 report in *The Northern Miner*. (This has since

To the south, Steel Company of Canada has a \$60 million project under way to develop iron ore to pellets at Bruce Lake — and this is bound to change the whole outlook for this town. Meanwhile, Cochenour-Willans, Canadian Nickel (Inco) and others are either now drilling or preparing to do so in the area to the north.

I think this latest development here may be very important in the future for Golsil Mines. In the first place, it could open up for exploration a big area between Red Lake and Favourable Lake about 120 air miles north. Secondly, it could speed up the process of the building on much-needed roads-to-resources in the area. Thirdly, it could make supplies easier to get.

One thing is sure — your Company is no longer “alone”. I can see the day soon when this whole vast area of Northern Ontario will become a big and active mining camp.





GOLSIL MINES LIMITED

Prospectus



Room 605 - 372 Bay Street
TORONTO, ONTARIO

MAY 25 1960

GOLSIL MINES LIMITED

PROSPECTUS

For filing with the Ontario Securities Commission under the provisions of Part VII of The Securities Act, being Chapter 351 of The Revised Statutes of Ontario

- A. Golsil Mines Limited, hereinafter referred to as "the Company," has its Head Office at Room 605, 372 Bay Street, Toronto 1, Ontario, Canada.
- B. The Company was incorporated by Letters Patent under the authority of The Corporations Act, 1953 (Ontario) dated June 15, 1959.
- C. (1) Officers and Directors
- | | Names in Full and Occupations | Addresses in Full |
|---|---|---|
| <i>President and Director</i> | JOHN RITCHIE REA,
Mining Executive | 316 Spadina Road,
Toronto, Ontario. |
| <i>Vice-President and Director</i> | WILLIAM CECIL ARROWSMITH,
Prospector | 39 Teffley Road,
Willowdale, Toronto, Ontario. |
| <i>Director</i> | THOMAS HERBERT REA,
Mining Executive | 56 Old Forest Hill Road,
Toronto, Ontario. |
| <i>Director and Secretary-Treasurer</i> | GORDON McLAUGHLIN, Q.C.,
Solicitor | 168 Valley Road,
Willowdale, Toronto, Ontario. |
- (2) Roche Mines Limited, 372 Bay Street, Toronto, Ontario, is the promoter of the Company.
- D. Thorne, Mulholland, Howson & McPherson, 111 Richmond Street West, Toronto, Ontario, are the Company's auditors.
- E. The Sterling Trusts Corporation, 372 Bay Street, Toronto 1, Ontario, is the Registrar and Transfer Agent of the Company.
- F. The Company has an authorized capital of 5,000,000 shares without nominal or par value, of which there are issued, outstanding and fully-paid, 900,005 shares. The 5,000,000 authorized shares shall not be issued for a consideration exceeding the sum of \$3,000,000.00.
- G. There are no bonds or debentures issued or outstanding nor does the Company propose to issue any.
- H. 810,000 shares are held in escrow by The Sterling Trusts Corporation, subject to release pro rata only with the consent of the directors of the Company evidenced by a resolution, and of the Ontario Securities Commission, and further subject to alienation, hypothecation and/or transfer within the escrow on the written consent of the Ontario Securities Commission.
- I. Five shares have been sold for cash to date at One Dollar (\$1.00) per share and no commissions were paid upon the sale of the said shares.
- J. No other securities have been sold for cash to date.
- K. No shares have been issued or are to be issued and no cash has been paid or is to be paid to any promoter as such. Roche Mines Limited, the promoter of the Company, has received as one of the vendors of the mining properties acquired by the Company 550,000 of a total of 900,000 vendor shares.
- L. (1) By agreement dated September 29, 1959, and entered into between Roche Mines Limited, 372 Bay Street, Toronto, William Cecil Arrowsmith, 39 Teffley Road, Willowdale, Toronto, and William Donald Morehouse, 396 Ambrose Street, Port Arthur, Ontario, as vendors and the Company as purchaser, the Company acquired from the said vendors 37 unpatented mining claims numbered as follows:—

KRL 45327 to 45344 inclusive
KRL 45519 to 45524 inclusive
KRL 46818 to 46830 inclusive

The mining claims are situated 125 miles north of Red Lake in the Patricia portion of the District of Kenora, Northwestern Ontario.

(2) The Company acquired the said mining claims from the vendors named in paragraph L (1) jointly and the consideration paid to each is:—

Roche Mines Limited	550,000 shares
William Cecil Arrowsmith	340,000 shares
William Donald Morehouse	10,000 shares
	<hr/>
	900,000 shares

(3) Thomas Herbert Rea, 56 Old Forest Hill Road, Toronto, and Gordon McLaughlin, Q.C., 168 Valley Road, Willowdale, Ontario, are the only persons to the knowledge of the vendors who are to receive from them or any of them a greater than five per cent interest in the said vendor shares. No one has received such an interest at the date hereof.

M. The particulars relating to the said mining claims of the Company (hereinafter in this paragraph M referred to as "the property") are as follows:—

1. The means of access to the property are set forth in detail in the report of W. C. Ringsleben, Consulting Mining Geologist, dated September 16, 1959, accompanying and forming part of this prospectus.
2. Details of the underground and surface exploration and development are set forth in detail in the said report of W. C. Ringsleben.
3. There is no underground plant and equipment. There is no surface equipment but there are buildings consisting of a headframe, office, bunkhouse and several other mine buildings in good repair as well as a mill building.
4. The history of the property is fully set forth in the said report of W. C. Ringsleben.
5. The present management has repaired the roads in and about the property; open stopes have been fenced; and all accumulated debris has been cleared away. The very substantial development of the property performed by the former owner, consisting of shaft sinking, crosscutting, drifting, raising and diamond drilling both surface and underground, is described in exact detail in the said report of W. C. Ringsleben.

N. There have been no options or sub-options and no underwriting or sub-underwriting agreements entered into by the Company and none are proposed to be entered into at the present time. An amending statement will be filed in the event that any such agreements or options are subsequently given.

The Company proposes to sell its shares to the public through the medium of registered security-dealers as agents, and the Company will pay such security-dealers the usual rates of commission as set by the Toronto Stock Exchange for mining companies or at a commission not exceeding 25%. The Company will bear no cost of distributing its shares in this manner.

The Company also intends to sell its shares to the public through its officers under the authority of a Security Issuer's registration and, if it sees fit to do so, to pay commissions not exceeding 25% of the proceeds of the sale of such shares. The minimum price per share to the Company's treasury is ten cents per share.

O. Development and exploration plans of the management will be in accordance with the recommendations contained in the report of W. C. Ringsleben, dated September 16, 1959, accompanying and forming part of this prospectus. The Company proposes expending the major part of the moneys to be received from the sale of its shares in implementing the recommendations contained in the said report. Ordinary administration expenses will also be satisfied out of the said moneys.

P. The estimated amount of preliminary expenses of the Company is \$10,000.00 on administration account, including the incorporation and organization of the Company, the issue and escrow of shares, the preparation and filing of this prospectus and the financial reports supplemental thereto.

The amount estimated to be expended on preliminary development expenses of the Company as recommended by W. C. Ringsleben is \$75,000.00.

Q. No indebtedness is to be created or assumed other than in the ordinary course of business which is not shown in the balance sheet of the Company prepared by the Company's auditors as of February 29, 1960, accompanying and forming part of this prospectus.

R. (1) The business in which each director and officer of the Company has been engaged during the past three years is:—

JOHN RITCHIE REA is a mining executive and during the past three years has been President and a director of Roche Mines Limited.

WILLIAM CECIL ARROWSMITH.....is a prospector and field engineer and has carried on those callings during the past three years. He is a graduate of the University of Western Ontario and holds the degree of Bachelor of Applied Science.

THOMAS HERBERT REA.....is a director and mining executive associated with various mining companies, including Coniaurum Mines Limited, Hardrock Gold Mines Limited and Temagami Mining Company Limited, during the past three years.

GORDON McLAUGHLIN, Q.C.....has practised as a barrister and solicitor of The Supreme Court of Ontario in Toronto, Ontario, during the past three years.

(2) Thomas Herbert Rea and Gordon McLaughlin, Q.C., have never had any interest either direct or indirect in the mining property acquired by the Company. Messrs. John Ritchie Rea, William Cecil Arrowsmith and William Donald Morehouse were the vendors of the mining property acquired by the Company, together with Roche Mines Limited, of which Company John Ritchie Rea is President and a director and William Cecil Arrowsmith is Vice-President and a director.

(3) \$2,250.00 has been paid to officers and \$75.00 to directors since the date of the incorporation of the Company to February 29, 1960. During the current financial year it is intended to remunerate directors in an amount of \$25.00 for attendance at meetings and to pay officers a total amount not to exceed \$5,000.00.

- S. No dividends have been paid by the Company.
- T. Roche Mines Limited as the beneficial owner of 550,000 shares of the Company is in the position to cause to be elected a majority of the directors of the Company.
- U. The Company knows of no arrangements as regards the purchase, sale or disposition of vendor shares. If notice of any arrangement shall come to the directors, an amending statement will be filed with the Ontario Securities Commission if the shares of the Company are then in the course of primary distribution. Vendor shares of the capital stock of the Company when freed as well as free vendor shares may be offered to the public at market prices but the proceeds of sales will not accrue to the treasury of the Company.
- V. There is no other material fact not disclosed in the foregoing.

DATED May 5, 1960.

The foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required by Section 38 of The Securities Act (Ontario) and there is no further material information applicable other than in the financial statements or reports where required.

DIRECTORS:

J. R. REA
W. C. ARROWSMITH

T. H. REA
GORDON McLAUGHLIN

PROMOTER:

ROCHE MINES LIMITED by J. R. REA, President.

GOLSIL MINES LIMITED

(Incorporated under the laws of Ontario)

Balance Sheet — February 29, 1960

ASSETS

Cash		\$	5.00
Mining claims, buildings and equipment, at the consideration given therefor, consisting of 900,000 shares of the company's capital stock at \$1.00 per share			900,000.00
DEFERRED CHARGES:			
Exploration and development expenses	\$ 17,966.88		
Administrative expenses	4,718.97		
	<u>22,685.85</u>		
Organization expenses	2,000.00		24,685.85
			<u>\$924,690.85</u>

LIABILITIES

Due to parent company, Roche Mines Limited		\$ 24,685.85
CAPITAL STOCK:		
Authorized, 5,000,000 shares without par value		
To be issued:		
For cash	5 shares	\$ 5.00
For mining claims	900,000 shares	900,000.00
	<u>900,005 shares</u>	<u>900,005.00</u>
		<u>\$924,690.85</u>

Approved on behalf of the Board:

J. R. REA, Director.

W. C. ARROWSMITH, Director.

AUDITORS' REPORT

To the Directors of
Golsil Mines Limited.

We have examined the balance sheet of Golsil Mines Limited as at February 29, 1960 and the statement of exploration and development and administrative expenses for the period from July 15, 1959, the date of incorporation, to February 29, 1960. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion the accompanying balance sheet and statement of exploration and development and administrative expenses present fairly the financial position of the company as at February 29, 1960 and the results of its operations for the period ended on that date, in accordance with generally accepted accounting principles.

Toronto, Ontario,
March 8, 1960.

THORNE, MULHOLLAND, HOWSON & McPHERSON,
Chartered Accountants.

GOLSIL MINES LIMITED

STATEMENT OF EXPLORATION AND DEVELOPMENT AND ADMINISTRATIVE EXPENSES

Period from July 15, 1959, the date of incorporation, to February 29, 1960

EXPLORATION AND DEVELOPMENT EXPENSES:

Government fees, licences and taxes	\$ 904.65	
Travelling and transportation	5,631.27	
Consulting fees	800.00	
Wages	5,890.07	
Supplies and equipment parts	1,039.51	
Line cutting	723.00	
Miscellaneous	2,978.38	\$17,966.88
		<hr/>

ADMINISTRATIVE EXPENSES:

Salaries	2,250.00	
Directors' fees	75.00	
Legal and audit	1,350.00	
Rent	624.37	
Office and general expense	419.60	4,718.97
		<hr/>
		<u>\$22,685.85</u>

REPORT ON

GOLSIL MINES LIMITED

INTRODUCTION

The property of Golsil Mines Limited formerly owned by Berens River Mines Limited was a producer of gold, silver, lead and zinc in the nine years 1939 to 1948.

This report is prepared for presentation to the Ontario Securities Commission. Because the workings are now filled with water no examination was possible, and the report is therefore based on maps and other records left in the mine office.

LOCATION AND ACCESS

The property is 125 miles north of Red Lake in the Patricia portion of the District of Kenora, North-western Ontario. It is five miles west of Sandy Lake, three miles south of South Trout Lake, and one mile north of Setting Net Lake.

The mine is most conveniently reached by air. Large planes can land on South Trout Lake where a dock is connected to the mine by a good gravel road. Small planes land on Borthwick Lake which is on the property. In winter supplies were brought in over a 180-mile tractor road from Lake Winnipeg.

PROPERTY AND OWNERSHIP

Golsil Mines Limited holds 37 unpatented mining claims which were acquired by staking.

The claim numbers are as follows:

KRL 45327 to 45344 inclusive
KRL 45519 to 45524 inclusive
KRL 46818 to 46830 inclusive

HISTORY

Veins containing gold and silver were first discovered in 1927 by K. C. Murray who was prospecting for the K.U.P. Syndicate of Winnipeg. An option was granted to Toronto mining interests who formed the Favourable Lake Mining and Exploration Company Limited. Much surface work and 5,390 feet of diamond drilling was done in 1928 and 1929, but after spending \$100,000 the option was dropped. The Favourable Lake Mining and Exploration Company Limited retained a 25 percent interest for work done. With the increase in the price of gold in 1934, more drilling was done on the property and on July 2, 1936, Berens River Mines Limited was formed with a capitalization of 1,000,000 shares. The mine was brought into production by an advance of \$600,000. from Newmont Mining Corporation, and by the sale in June 1938, of an additional 1,000,000 shares of stock at \$1.00 per share. Production started in September 1939 with a 2,000 horsepower hydro-electric plant, a 225-ton mill, and the mine developed to the 500-foot level. During the next 9 years the vein system was explored to 3,050 feet. Up to August 1948 when the mine was closed, the Company stated in the annual report for 1948, that the total production had been 560,707 tons of ore having a value of \$9,481,498 in gold, silver, lead, and zinc.

During 1949 and succeeding years the Company sold most of the heavy equipment, but new hardware, fittings, cyanide and other small inventory are still on the property. Several buildings have been maintained in good condition.

The claims reverted to the Crown in the spring of 1959 and the property with a few additional claims was staked by W. C. Arrowsmith.

ECONOMIC CONDITIONS

1. Transportation — An all weather road planned to go north from Red Lake may pass in the vicinity of Sandy Lake. This would greatly reduce freighting problems for Golsil Mines and would put the mine in quick contact with mine equipment suppliers and machine shops at Red Lake.

2. Timber — Good timber is scarce on the property but can be obtained in the district.

3. Power — The falls previously developed on the Duck River, eight miles east of the mine, generated 2,000 horsepower. The dam and power house are reported in good shape, and the plant could be put into

operation by replacing the equipment. The transmission line is dismantled but most of the wire is on the property.

4. Water — Enough water is available on the property for all mining operations.

5. Buildings — The headframe, office, bunkhouse, and several other mine buildings are in good repair. The mill building can be repaired at small cost.

GEOLOGY

The rocks on the property are of Pre-Cambrian age, and consist of much altered volcanics and sediments trending in a northerly direction and dipping steeply east. A band of dark lavas occupying much of the eastern half of the property is now largely altered to a quartz biotite schist. A buff-colored sericitized rock is considered to be a later alteration of the western part of the dark lavas. The sediments are a thinly bedded series of greywacke, quartzite, grit, and conglomerate. A basic intrusive in the western part of the property was probably a gabbro which is now altered to amphibolite. Several narrow felsite and diorite dikes in the mine area trend in an easterly to N60°E direction and dip 65°SE. A post-ore diorite dike runs in a N15°E direction through the east side of the property.

Gold, silver, lead and zinc values occur in quartz veins. Most of the known veins are in shears in the dark lavas near the buff rock and opposite folds in the sediments. The No. 1 and No. 3 veins which have been explored underground, strike in an easterly to southeasterly direction, and ore shoots within these veins appear to bear a close relationship to tongues of buff rock. Faulting which is a prominent feature of the vein occurrences is also associated with these tongues of buff rock. Most faults are probably pre-ore or contemporaneous with the introduction of the ore solutions. In many cases ore shoots or higher grade sections are localized along faults, but the overall control of location and plunge of ore shoots depends on proximity to and dip of the buff rocks.

Ore bodies that were developed were in breccia zones within well defined shears and these zones were filled and replaced by quartz, actinolite, pyrite, sphalerite, galena, and minor amounts of tourmaline, biotite, garnet and calcite. Gold content in ore shoots of the No. 1 vein averaged 2 oz to 4 oz, and silver averaged 8 to 20 oz per ton. Ore sections that were mined were 50 to 300 feet long and averaged 10 feet wide. Some extended through three or four levels, but generally lenses pinched out vertically and new ones came in, generally to the east conforming to the dip of the buff rock. The No. 1 vein is the only one of 20 veins which was extensively explored. No. 3 has been partly tested on the 340-foot, 490-foot and 1550-foot horizons but drilling intersections suggest that there is room for further work along the vein strike on all levels.

WORK DONE

The underground work done by Berens River Mines Ltd. consisted mainly of development of No. 1 and No. 3 veins through shafts No. 1 and No. 2.

Shaft No. 1 was sunk in stages to the 1850-foot level and No. 1 vein was developed on 13 levels. In addition No. 3 vein was tested from No. 1 shaft with a long crosscut on the 1550-foot level. Below the 1850-foot level the No. 1 vein system was developed through a winze situated 1,100 feet southeast of No. 1 shaft. This winze was sunk to the 3200-foot level and the vein was developed on seven levels down to 3,050 feet.

Shaft No. 2 was sunk to 511 feet, and No. 3 vein was partly developed on the 340-foot and 490-foot levels.

The total linear footage of exploration and development done to August 1948 was:

Shaft Sinking	4,053
Crosscutting	16,203
Drifting	23,845
Raising	10,670
Diamond Drilling	
Underground	113,483
Surface	51,361

Total Production 1939 to 1948:

Tons of ore treated	560,707
Value of Production	9,481,498
Average Value per ton \$	16.90

Metals Produced:

Gold	157,341	oz
Silver	5,676,486	oz
Lead	5,105,872	Lbs
Zinc	1,797,091	Lbs

Incomplete records indicate that at least 75 percent of production came from No. 1 vein above the 1850-foot level. Probably not over 10,000 tons came from No. 3 vein.

FUTURE ORE POSSIBILITIES

The best possibilities for developing more ore are in No. 3 vein zone which has been only partly tested on three levels. The ore lenses which were developed were short and values were reported spotty but there is evidence of extensions or other lenses both along strike and between levels. Four drill holes from surface under this vein on the possible plunge of the ore shoot cut values which were not investigated underground.

<i>Hole</i>	<i>Feet Below Surface</i>	<i>Core Length</i>	<i>Gold Oz</i>	<i>Silver Oz</i>
S288	115	6.5	0.11	3.0
	130	3.9	0.22	9.6
S283	40	5.0	.45	11.3
S291	270	14.2	0.21	14.5
S285	115	4.5	0.09	4.5
S286	130	2.5	0.21	11.4
S287	290	4.5	0.18	8.0
	320	3.1	0.14	12.0

East of this zone drill holes cut 300 feet of vein containing low values. To the northwest No. 19 vein overlaps No. 3 vein and one hole here at a vertical depth of 65 feet cut high values across six inches. Still further northwest several holes were drilled under No. 10 vein. Two of these cut values at shallow depths. No. 10-3 intersected 5 feet assaying .87 oz gold and 25.1 oz silver. No. 272 cut 3 feet assaying 0.06 oz gold and 7.9 oz silver.

Channel sampling of veins developed on the 340-foot and 490-foot levels on two ore shoots having a combined length of 160 feet and 130 feet respectively gave values across a 4-foot width of approximately 0.24 oz gold and 14 oz silver. No lateral work was done beyond these shoots. In view of drill results listed above, development on all three levels at No. 2 shaft should find more ore. Also on the 1550-foot level development has not been completed. Short drill holes cut ore values in the walls of the main vein, and to the east of the workings a long hole cut 13.8 feet assaying 0.67 oz gold and 9.3 oz silver. These indications and other values in holes east of the crosscut were not further investigated.

The No. 1 vein system was a series of ore lenses in a shear zone. While it appears that development of this structure was fairly comprehensive there is still the possibility that further exploration by drilling and drifting will prove up more ore.

In addition to the two main veins, spotty values were found in several other veins. Some of these were drilled but values were not high enough to justify underground development. It is possible that at other horizons in the stronger shears conditions exist which are structurally suitable for ore emplacement.

RECOMMENDATIONS

1. Dewater the No. 2 shaft, and explore the No. 3 zone on the 180-foot, 340-foot, and 490-foot levels. This work should include testing the No. 19 and No. 10 veins on at least one level. Drill holes should cover veins No. 11 and No. 12 to the north of No. 3 vein.

2. If developments in No. 2 shaft area are favourable, dewater No. 1 shaft to the 1550-foot level. Re-examine the old workings and plan more work on both the No. 1 and No. 3 zones.

3. At a later date, depending on results at No. 1 and No. 2 shaft areas, drill some of the stronger veins south of No. 1 shaft.

RINGSLEBEN AND BURNS,

W. C. RINGSLEBEN.

Toronto, Ontario,
September 16, 1959.

CERTIFICATE

I, W. C. RINGSLEBEN, of the City of Toronto, in the Province of Ontario, hereby certify:

1. That I am a practising Consulting Mining Geologist and reside in the City of Toronto, Province of Ontario.
2. That I am a graduate in Mining Engineering of Queen's University, and have been practising my profession for the past 42 years.
3. That I am a member of the Association of Professional Engineers of the Province of Ontario.
4. That I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly in the property or securities of Golsil Mines Limited.
5. That the writer has not made a personal examination of the property, and this report on Golsil Mines Limited dated September 16, 1959, is based on mine maps and records in possession of the Company.

Dated at Toronto, Ontario this 16th day of September, 1959.

W. C. RINGSLEBEN

W. C. Ringsleben, P.Eng.

Supplement to Report of September 16, 1959, and to be attached to and form a part of that report.

The estimated cost of doing work under Recommendation No. 1 will be:

Dewatering No. 2 Shaft	\$ 30,000.
Diamond Drilling	16,000.
Drifting and Crosscutting 250 ft. at \$65.00 per ft.	16,250.
Installation of Plant Rentals and Operation for three months	60,000.
	<hr/>
	122,250.
Contingencies	6,000.
	<hr/>
	<u>\$128,250.</u>

RINGSLEBEN AND BURNS

W. C. RINGSLEBEN

W. C. Ringsleben

Toronto, Ontario,
April 25, 1960.

CERTIFICATE

I, W. C. RINGSLEBEN, of the City of Toronto, in the Province of Ontario, hereby certify:

1. That I am a practising Consulting Mining Geologist and reside in the City of Toronto, Province of Ontario.
2. That I am a graduate in Mining Engineering of Queen's University, and have been practising my profession for the past 42 years.
3. That I am a member of the Association of Professional Engineers of the Province of Ontario.
4. That I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly in the property or securities of Golsil Mines Limited.
5. That the writer has not made a personal examination of the property, and this report on Golsil Mines Limited dated April 25, 1960, is based on mine maps and records in possession of the Company.

Dated at Toronto, Ontario this 25th day of April, 1960.

W. C. RINGSLEBEN

W. C. Ringsleben, P.Eng.

AR39

GOL SIL MINES LIMITED

Favourable Lake Area.

District of Patricia, Ontario.

JUL 24 1963

By: W.C. MARTIN.

COLISEL MINES LIMITED

AMENDMENT NO. 1 TO THE PROSPECTUS OF COLISEL MINES LIMITED

DATED THE 20th DAY OF FEBRUARY, 1963.

1. SEE PARAGRAPH 6 OF THE PROSPECTUS;

The authorized and issued capital of the Company are unchanged.

2. SEE PARAGRAPH 13 AND 16 (V) OF THE PROSPECTUS AND THE RED LAKE CLAIMS.

Accompanying this Amendment is a copy of the report on this property by W.C. Martin, P. Eng., dated July 23rd, 1963. The Company will carry out the diamond drill program recommended by Mr. Martin as and when funds are available.

The foregoing, together with the Prospectus dated the 16th day of Feb., 1963, constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above, as required by Section 38 of The Securities Act (Ontario), and there is no further material information applicable other than in the Financial Statements or reports where required.

DATED the 1st day of August, 1963.

DIRECTORS:

"T.E. KELLY"
T.E. Kelly

"A.J. LEWIS"
A.J. Lewis

"W.C. ARROWSMITH"
W.C. Arrowsmith

"J.A. GILBERT"
J.A. Gilbert

"J.A. MURPHY"
J.A. Murphy

PROMOTER

ASTA CORPORATION LIMITED
Per: "A.J. LEWIS"
A.J. Lewis.

PLANS AND SECTIONS ACCOMPANYING REPORT:

Favourable Lake Area
District of Patricia, Ontario

CONCLUSIONS

1. The best ore potentialities lie in the No. 2 shaft vicinity located 2000 feet north of No. 1 vein and shaft. No. 1 vein yielded practically all the past production.
2. Favourable conditions for ore in the No. 2 shaft area are anticipated below a depth of 500 feet and above a depth of 2000 feet in veins Nos. 3, 19 and 10 which lie in a broad zone about 400 feet wide. No development work or diamond drilling was carried out by the previous operators in the heart of the favourable horizon where the writer would concentrate exploration diamond drilling.
3. Development work at No. 2 shaft was all above the 500 foot horizon where only a relatively small amount of ore was located. A long crosscut and drive from No. 1 shaft in the 1550 foot level tested No. 3 vein at this horizon with generally disappointing results although some ore was met with. The 1550 foot level, however, could have been an unfortunate choice as it lies near the bottom of the favourable horizon projected by the writer from No. 1 vein.
4. The best ore conditions in No. 1 vein system occurred in the section from surface down to the 950 foot level where flat faulting of the vein is conspicuous. Below this horizon conditions appear to have deteriorated progressively so that below the 1850 foot level only a relatively small amount of ore was mined.
5. The poor ore conditions met with at depth in No. 1 vein system appear to have been due to changing structural conditions and tightening of the vein structure. Decrease and lack of flat cross fracturing and faulting of the vein with depth is considered by the writer as highly significant. Flat faulting in the upper horizons presumably permitted vein dilation and its absence seems largely responsible for poor conditions at depth.

6. The writer would put great exploration emphasis on the known zones of flat faults and fractures. The layering of the flat faults into zones creates hospitable and inhospitable ore blocks. It is important to determine the location of the favourable zones by projection, and possibly by alteration study, and to concentrate exploration effort to that portion of the veins which lies within a favourable block of ground.

7. A tonnage of low grade ore could be expected in the extensions of No. 1 vein system and around the old stopes. Ore which was marginal in grade during previous operations, due to the increase in price of silver, should be profitable. Unfortunately the records are not complete enough to assess the tonnage and grade which might be available. The necessary information could only be had by pumping out the mine and doing a considerable amount of diamond drilling. The ore possibilities, however, would not be sufficient to justify pumping out the shaft at this time. Sufficient low grade ore is probably present to materially augment any new ore found at No. 2 shaft or elsewhere and thus assist in building up tonnage.

RECOMMENDATIONS

1. It is recommended that a minimum of 5,000 feet of surface diamond drilling be done on the veins of No. 2 shaft area within the projected favourable horizon.

2. It is recommended that the first diamond drill hole be spotted to cut No. 3 vein approximately 1400 feet below the collar of the shaft and 540 feet east of No. 2 shaft. This first hole can then be used to wedge off three or more holes to cut No. 3 laterally and at shallower depth. At least 3000 feet will be required for the first hole and wedges.

3. Three further diamond drill holes are recommended which will require a minimum of 2000 feet altogether, these holes to be spotted after the completion of the first hole and wedges and suitably placed above the wedges but below the bottom of No. 2 shaft.

4. Assuming the above 5000 feet of drilling meets with success a further 5000 feet of drilling is contemplated on the veins north of No. 3 again within the same favourable zone. If ore is indicated in the vein zones north of No. 3 vein as well as No. 3, it would be well justified to pump out No. 2 shaft and also No. 1 shaft down to the 1550 foot level, with the view of deepening No. 2 shaft and exploring the veins north of No. 3 vein on the 1550 foot level.

5. The estimated cost of the 5000 feet of diamond drilling recommended above is \$40,000 including all incidental expense except head office. This expenditure is well justified on this property and recommended without hesitation.

INTRODUCTION

The writer spent three and a half days on the property last June and in the summer of 1959 the writer spent a day and a half on the property. The writer was never underground at the mine and is dependent on the excellent mine records, plans and sections formerly the property of Berens River Mines Ltd., the previous owners of the property.

The diamond drill cores fortunately have been largely preserved and will prove invaluable for further studies of the geology and alteration problems. As suggested in this report, restudy of ore related alteration, plus the application of new geological thinking since the mine closed down, may furnish major new clues to aid the search for new deposits in the mine area. Certainly these deposits are unique, the text-book and classical geological theories are far from satisfactory when applied to the deposits of the Favourable Lake area, a new exploration approach is essential if further deposits are to be found.

LOCATION AND ACCESS

The property is located in the Favourable Lake area lying about 100 miles north of Red Lake. It is on the winter freight route from Riverton, Manitoba to Sandy Lake which lies 25 miles east of the property. The distance

to Riverton is about 260 miles. There is a large Indian settlement at Sandy Lake with Christian missions of various denominations, small hospital, and Hudson's Bay Post. The population is over 500.

At highwater and also in the winter small planes can land at the mine on Borthwick Lake. South Trout Lake is used by larger aircraft and for air freight, this lake is 4 miles northwest of the mine but connected to the mine by a good road.

TRANSPORTATION COST

Winter freight from Riverton, Manitoba is landed at Sandy Lake Hudson's Bay Post 25 miles east of the mine at approximately \$120 a ton. Air freight rate is currently slightly less than double this rate from Red Lake, Ontario.

There is a possibility that the Provincial government may extend the highway at Red Lake northward toward Favourable Lake during times of unemployment in the district.

PROPERTY

The company's property consists of 12 claims ready for patent and surveyed, namely - KRL 45327 - 35 inclusive and KRL 4538 - 40 inclusive. Additional unsurveyed claims, held by the company, are as follows: KRL 45334, 45336 and 37, 45341 and 42, 45344, 46818 to - 30 inclusive, 45520 and 45522, 33 claims in all are held or approximately 1320 acres.

HISTORY

The original discovery on this property was made in 1927 by K. Murray. The Favourable Lake Mining and Exploration Company was incorporated the following year to finance an option obtained on the Murray claims. After spending \$100,000 in surface work and diamond drilling the Favourable Lake company dropped the option but retained a 25 percent interest in the claims for the work done.

In 1936 the Berens River Mines Ltd. was incorporated by Newmont Mining

Corporation to take over the Murray claims. The company was supplied with finances to carry out underground development. Production started in 1939 with a 225 ton per day mill. By 1948 the mine had reached a depth of 3050 feet. Unable to develop commercial grade ore at depth and with rising labour costs the mine was forced to close in 1948.

In 1959 the company's mining claims were allowed to expire and the ground reverted to the Crown. The property was acquired at this time by W.C. Arrowsmith by staking.

TOPOGRAPHY * TIMBER * POWER * WATER

The relief in the Favourable Lake area is between 100 to 250 feet. The relative proportion of lake, muskeg, sand plain, clay soil and outcrop is about average for northwestern Ontario. The timber is average for the latitude and consists of a dense growth of spruce, poplar and birch in clay and sandy clay soil areas and the usual jackpine on sandy soil and black spruce in the muskegs. Frost is present in places in the muskegs all summer a foot or more below the surface.

During the operation of the mine, power was developed on the Duck River, eight miles from the mine. The dam and power here are reported to be in good shape but all the equipment was removed when the mine closed down. The power plant developed 2000 horsepower.

Water for plant and general use was pumped from Setting Net Creek to a high steel water tank at the mine, the distance from the pump house to the mine being about a mile. The tank is in good shape but the pump and water line will have to be replaced.

PLANT AND BUILDINGS

Many of the buildings around the plant site and mine area are still in good shape. A few buildings unfortunately have been pulled down or partly destroyed by Indians in search of building material. The condition of the plant buildings as at June 1963 is summarized roughly below.

Crushing plant and mill: Framework still standing but wall board mostly stripped off - roof loose and partly gone. Framework seriously damaged in places when equipment removed, wood tanks in fair shape.

<u>No. 1 shaft, headframe:</u>	Fair, probably requires new back legs, ore bin O.K.
<u>No.1 shaft, drier:</u>	gone
<u>Warehouse</u> :	good except for landing which needs repair
<u>Electrician's shop:</u>	good, equipment gone
<u>Carpenter's shop</u> :	good, equipment gone
<u>Machine shop</u> :	good, equipment gone
<u>Boiler plant</u> :	building fan, steam boiler rusting badly
<u>D.D. core shack</u> :	good, core in good shape
<u>Assay office</u> :	very poor
<u>Oil storage tank</u> :	good
<u>Steel water tank(high):</u>	paint in good condition- not rusting- looks very good, including tower
<u>Cookery</u> :	fair
<u>Recreation hall</u> :	poor, roof torn off
<u>Women's residence</u> :	O.K.
<u>2 bunk houses</u> :	O.K.
<u>1 apartment house</u> :	O.K.
<u>Hospital</u> :	O.K.
<u>3 cottages</u> :	fair
<u>School</u> :	O.K.
<u>Managers house</u> :	O.K.
<u>No.2 shaft</u> :	headframe and surface plant all gone

UNDERGROUND DEVELOPMENT

No.1 shaft : vertical 3-compartment shaft 1890 feet deep with 13 levels, bottom and winze level at 1850 feet.

Winze : collared at 1850 foot level located 1100 feet southeast of No. 1 shaft, winze was sunk to 3200 foot level and the vein developed on seven levels down to 3050.

No. 2 shaft: vertical 3-compartment shaft 511 feet deep. Two levels at 340 feet and 490 feet.

The total linear feet of underground development is as follows:

Shaft sinking	4,053
Cross cutting	16,203
Drifting	23,845
Raising	10,670

DESCRIPTION OF WORK DONE

At least 20 different veins were located by surface work and by surface diamond drilling which totalled 51,361 feet up to the closing of the mine. The present owners have completed about 2000 feet of diamond drilling in addition. Most of the surface work and diamond drilling was concentrated on Nos. 1, 3, 19, 10 and 17 veins.

Underground development was confined to No. 1 and No. 3 veins except for a small amount of drifting in No. 2 vein. Practically all the production came from No. 1 vein.

No. 1 shaft is located in the footwall of No. 1 vein and No. 2 shaft in the hanging wall of No. 3 vein. A long crosscut from No. 1 shaft and drive on 1550 foot level tested No. 3 vein.

In order to test ore intersections obtained at depth below the 1850 foot level, a winze was sunk from this level by stages to the 3200 foot level. Seven levels were established off the winze and some ore was stoped out but results were disappointing and the ore found did not return the cost of the winze and development work below the 1850 level.

PRODUCTION

Tons of ore tested :	560,707
Value of production :	\$ 9,479,690.00
Average recovery per ton :	\$ 16.90

Metals production

Gold :	157,341 ozs.
Silver :	5,676,486 ozs.
Lead :	5,105,892 lb.
Zinc :	1,797,091 lb.

MILL OPERATION AND METALLURGY

The ore was treated by cyanidation, tailings from cyanidation were treated by flotation. Cyanide mill precipitate and flotation concentrates were shipped out for treatment.

The mill started operating in 1939 at a capacity of 225 tons per day. Development and ore reserves fell behind in 1943 largely due to the war and labour shortage but also due to weakening ore conditions with depth. During 1943 and after the mill averaged less than 150 tons per day except in 1945 when it averaged 200 tons per day.

The milling efficiency is indicated in the recovery obtained in the last three years of operation. The information below is taken from annual reports of Berens River Mines Ltd.

<u>1948</u>	Tonnage milled	:	49,930
	Mill heads	:	0.21 oz.au.; 8.8 oz. ag.
	Gold recovery	:	10,276 oz. = 96.73%
	Silver recovery	:	394,985 oz. = 89.54%
	Lead recovery	:	355,570 lb.
	Net recovery per ton milled averaged:		
	cyanide precipitate =		\$12.55
	flotation concentrate =		<u>1.82</u>
	Total :		\$14.37
<u>1947</u>	Tonnage milled	:	27,395 (Note: mill was closed down for 5 months)
	Mill heads	:	0.20 oz.au.; 9.7 oz. ag.
	Gold recovery	:	5,385 oz. = 96.47%
	Silver recovery	:	242,245 = 89.77%
	Lead recovery	:	195,862 lb.
	Net recovery per ton milled averaged:		
	cyanide precipitate =		\$12.35
	flotation concentrate =		<u>1.69</u>
	Total :		\$14.04
<u>1946</u>	Tonnage milled	:	41,925 tons
	Mill heads	:	0.24 oz. au.; 12.3 oz. ag.
	Gold recovery	:	9,708 oz. = 97.25%
	Silver recovery	:	471,575 oz. = 91.83%
	Lead recovery	:	281,956 lb.
	Zinc recovery	:	42,628 lb.
	Net recovery per ton milled		
	cyanide precipitate =		\$18.38
	flotation concentrate =		<u>1.73</u>
	Total :		\$20.11

CHARACTER OF THE VEINS AND MINERALIZATION

Metallic mineralization is present in the following minerals in about the order of abundance: pyrite, sphalerite, galena, pyrrhotite, chalcopyrite, tetrahedrite, ruby, silver, native silver, argentite, fine gold, sylvanite.

The gangue material of the veins consists of quartz and ankeritic carbonate. Carbonate veining in places has been metamorphosed to amphibolite-garnet rock. Much of the ore is in brecciated silicified and carbonatized andesitic rock which is bleached and altered to a rhyolitic appearance

The vein filling of the breccia is very irregular so that the veins for the most part have indefinite walls, locally, however, they may be clear cut and fissure-like. The vein zones appear to have developed originally as fissure-like openings which later were largely destroyed by slumping, crackling of the walls and severe brecciation. The writer believes the vein structure developed when the volcanics were flat lying, and the deposits originated in pre-Temiskaming time. During folding and afterwards the deposits were possibly reworked or remobilized to some extent.

The ratio of silver to gold in No. 1 vein system works out to about 40 ounces of silver to one ounce of gold. It is interesting to note the relatively small amount of ore found at depth below the 2700 foot level averages out to about 50 ounces silver to one ounce of gold. A lower ratio of silver to gold rather than a higher would be expected if these deposits originated from some source at depth.

GEOLOGY

The rocks of the mine area are composed of Keewatin volcanics, with interbedded iron formation and slaty sediments or tuff. Lying unconformably on the Keewatin rocks there is a band of greywacke and conglomerate of Temiskaming type. The conglomerate contains chert and iron formation pebbles, also pebbles of banded argillite and slaty tuff similar to that associated with the iron formation.

Dioritic intrusions, altered to amphibolite-biotite schist occur in considerable volume along the west side of the property. These dioritic rocks are medium to fine-grained and difficult to distinguish from altered andesite. A few fine-grained aplitic or felsitic dikes are present up to 8 feet wide in the mine area but on the whole acid intrusives seem to be scarce.

The volcanics in the mine area, east of the Temiskaming sediments, are comprised of massive to schistose andesite largely bleached and altered. No pillows are present, nor did the writer see sure flow contacts. Much of the andesitic material could be intrusive, if so its fine grain indicates it was emplaced near surface and chilled fast.

Towards the Temiskaming sediments the andesites of the mine area are bleached, silicified and altered. This zone of alteration strengthens towards the conglomerate contact and weakens away from the contact. It lacks uniformity, it is irregular in distribution and varies in width from about 200 feet to 1200 feet or more. It was referred to in mine terminology as "buff alteration".

The buff alteration appears to run for miles more or less paralleling the trend of the volcanic and sediments. The significance of this alteration is discussed later under the heading "Ore Related Alteration".

STRUCTURE

The Temiskaming conglomerate lies unconformably on the Keewatin iron formation and volcanics, hence it is of little value in interpreting the structure of the latter. The iron formation rich horizon, however, in the Keewatin can probably be used as a marker horizon to indicate the possible structure of the volcanics. Due to poor outcrop and the structureless character of the Keewatin andesite, top determinations could not be made.

The distribution of iron formation suggests an anticline plunging north with the axis running through about the middle of the property.

To date all the veining and ore found has been restricted to the west limb of the anticline. Alteration analogous to "buff alteration" is present on the east limb and further investigation of the ore possibilities of this limb would be justified at a later date. In the meantime, exploration should be confined to the proven west limb. The absence of Temiskaming conglomerate in the east limb and the greater thickness of iron formation on this limb may be significant. The east limb appears to have missed deep erosion in Temiskaming time. There are structural reasons, therefore, why the east limb may not be as favourable for ore as the west limb, secondary enrichment could have played a part in the west limb where the buff alteration is in contact with conglomerate.

ORE RELATED ALTERATION AND POSSIBLE ORIGIN OF THE DEPOSITS

Neither the buff alteration zone or the ore deposits within the zone can be related to any visible acid intrusive, Algoman in age or otherwise. A new interpretation seems called for to explain these interesting deposits.

The evidence suggests strongly that the buff alteration zone, and possibly the veins and ore contained in it, originated in pre-Temiskaming time when the volcanics were flat. The writer believes the buff alteration zone is a surface phenomenon which developed as a result of hot spring and fumarolic activity. The strata-like continuity of the altered rocks was possibly controlled by the position of the water table.

The location of quartz-carbonate veins appears to have been controlled in part, if not largely, by subsidence and faulting with the formation of considerable breccia. Solution channels are suggested by short lenses of banded argillite and greywacke contained in breccia. The quartz carbonate veins probably filled vents which had been outlets for escaping volatiles. The veins lack sharp walls and clearly followed breccia where openings were available.

The buff alteration presumably resulted from the leaching action of heated surface and volcanic waters and to the addition of certain elements, particularly silica and possibly albite. Brecciation, bleaching, silicification and alteration of the volcanics in a general way decreases away from the quartz-carbonate veins, showing that the latter and the alteration were closely related.

The sulphide mineralization, gold and silver, however, was probably late in the sequence of vein formation and followed post vein fracturing which was not so closely tied as the quartz and carbonate to wallrock alteration. The ore related fractures, being younger, both followed and cut across the veins. The ore solutions in general found the pre-existing quartz-carbonate breccia a suitable and porous host rock for filling and replacement, where the fractures transgressed unbrecciated country rock there was little or no ore.

The writer believes that all or part of the cherty, banded iron formation, cherty pyritic carbonate, was probably related to and the product of the hot spring and fumarolic activity. The buff alteration zone and at least the basal portion of the overlying iron formation therefore were the end products of a single process, both are related to the end phase of volcanism.

It is hoped that further study of the alteration problem may enable alteration accompanying the period of sulphide and precious metal to be distinguished from the earlier buff alteration which attended the period of quartz-carbonate vein formation. If so, it may be possible to identify the most favourable locations for ore search and thus eliminate much waste exploration effort.

Reference has been made to the zones of flat faulting which appear to have permitted vein expansion and favoured ore deposition in the upper horizons of No. 1 vein system. Silicification is reported to have accompanied the flat faults, if so, an alteration study of the flat fault zones might enable these zones to be easily identified as a further aid to exploration.

ORE POTENTIALITIES

No. 3 Vein and Adjoining Veins (No. 2 shaft)

Next to the main vein system, the No. 3 vein system has the most promising ore potentialities. Including No. 3 vein system with veins No. 19 and No. 10, which are parallel to it and close by, there is a zone of parallel veining indicated with a width of 400 feet. Providing the right horizon can be found to test and explore this wide zone and comparing the volume of vein material present, the ore potentialities could prove to be much greater in No. 3 vein system vicinity than along the main vein system from which over 500,000 tons of ore was extracted.

As previously mentioned, a favourable zone of flat fracturing is indicated which could have been responsible for the concentration of ore in the upper portion of No. 1 vein, that is between the surface and the 950 level. This favourable zone is at least 1000 feet thick, it is gently inclined towards the north and should contain the Nos. 3, 19 and 10 vein system at No. 2 shaft below a depth of 500 feet and above a depth of 2000 feet.

It is planned to test Nos. 3, 19 and 10 veins in the favourable zone of fracturing by diamond drilling a master hole to cut the No. 3 vein at 1400 foot depth, the master hole would then be used to wedge off at least three subsidiary diamond drill holes. Depending on results, follow up holes will be spotted in the best location above or around the most promising vein intersections. Once the favourable zone is located down No. 3 vein, veins No. 19 and No. 10 can be tested in the same zone.

As mentioned above, all the work done in the No. 2 shaft vicinity and to the north was above 500 foot depth too high to catch the veins in the

favourable zone of faulting and fracturing projected from No. 1 vein. The following diamond drill hole intersections obtained in No. 2 shaft vicinity, however, indicates the presence of strong mineralization with good values in places:

<u>D.H. No.</u>	<u>Depth Ft.</u>	<u>Core Length</u>	<u>Gold oz.</u>	<u>Silver oz.</u>
S.288	115	6.5	0.11	3.0
	130	3.9	0.22	9.6
S.283	40	5.0	0.45	11.3
S.291	270	14.2	0.21	14.5
S.285	115	4.5	0.09	4.5
S.286	130	2.5	0.21	11.4
S.287	290	4.5	0.18	8.0
	320	3.1	0.14	12.0
S. 10.3		5.0	0.87	25.1 (No.10 vein)
S.272		3.0	0.06	7.9 (No.10 vein)

Underground at No. 2 shaft, on the 340 foot and 490 foot level two ore shoots with a combined length of 160 feet and 130 feet respectively of ore was opened up by drifting. The average value is given in the mine records as 0.24 oz. gold and 14 oz. silver over an average width of 4 feet.

On the 1550 foot level, east of the drifting on No. 3 vein which gave spotty ore, a drill hole cut 13.8 feet of vein material averaging 0.67 oz. gold and 9.3 oz. silver. This ore intersection was not investigated by underground development.

MAIN VEIN No. 1 SHAFT

Over 500,000 tons of ore was extracted from the main vein. It seems reasonable to expect that a moderate amount of low grade ore could be counted on around the fringes of the old stopes. Material which was sub-

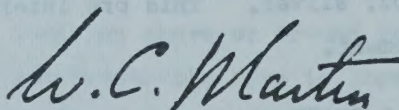
marginal in grade when the mine closed down but with the increase in the price of silver would now make low grade ore.

Unfortunately the records are not complete enough to assess the possible tonnage of low grade ore which might be available. There could be a substantial tonnage of sub-marginal grade ore however, which if the price of both gold and silver go up further could make ore. There might possibly be 100,000 to 150,000 tons of material in place around the vicinity of the stopes and drifts, averaging out to \$10.00 per ton at present prices, that is ore grading around 0.10 oz. gold and 5.0 oz. silver per ton. This is not an ore estimate but an opinion of the possible low grade ore potential in the old mine, based on a study of the plans and sections where widely spaced diamond drill holes indicated low to medium ore values which were not further investigated, and places where stoping started but grade fell off, or faulting caused dilution, and development or stoping was abandoned.

Much depends on finding more ore in the No. 2 shaft area and elsewhere to build up a tonnage appreciably better in grade than \$10.00 per ton. The more tonnage that can be found, the larger the treatment plant capacity could be, resulting in proportionally lower overall cost per ton of ore mined and treated.

Toronto, Ontario

July 23, 1963



W. C. Martin, P.Eng.

C E R T I F I C A T E

I, W. C. Martin, of the City of Toronto, in the Province of Ontario, hereby certify:

1. That I am a practising Consulting Mining Geologist and reside in the City of Toronto.
2. That I am a graduate in Mining Engineering of the University of Toronto with a degree of B.A.Sc. and have been practising my profession for the past thirty-five years.
3. That I am a member of the Association of Professional Engineers of the Province of Ontario.
4. That I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly in the property or securities of Golsil Mines Limited.
5. That I made the last personal examination of the Golsil Mines Limited property in the Favourable Lake area, District of Patricia on June 15th, 16th, 17th and 18th, 1963. This report is based on personal examination therefore of the property and personal study of the mine maps and records in possession of the Company.

Dated at Toronto, Ontario, this 23rd day of July, 1963

W. C. Martin
W. C. MARTIN, P.ENG.

